Exhibit E-38 Oakland Operations Office (Continued) Cleanup Project Summary: Duration and Costs (All costs in thousands of 1998 dollars)

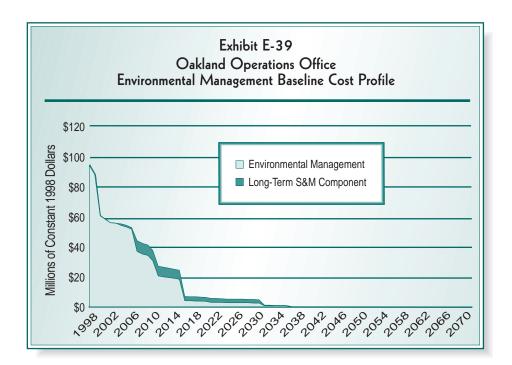
97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23-70																		
Total	8,240	17,025		29,216		11,911	176,145	118,944	1,249	64,521		182,749		5,081	959,345			
2007 -	0	0		0		0	31,902	42,413	0	0		131,144		0	282,388			П
1997 - 2006	8,240	17,025		29,216		11,911	144,243	76,531	1,249	64,521		51,605		5,081	676,957			
Site Closure Project Activities	LBNL Legacy Waste	LBNL Newly Generated Wastes*	Lawrence Livermore National	LLNL Decontamination and	Water Treatment Facility	Accelerated Waste Treatment	LLNL Main Site Remediation	LLNL Site 300 Remedial Action	LLNL General Plant Projects*	LLNL Base Program*	Separations Process Research Unit (SPRU)	Separations Process Research Unit	Stanford Linear Accelerator Center (SLAC)	SLAC Environmental Restoration	Total			

\*Project extends through 2070, but newly generated waste costs beginning in FY 2000 are expected to be transfered back to the generator.

The overall planned site completion dates of EM work scope (excluding long-term surveillance and monitoring) are as follows:

Site	<b>Date</b>
Energy Technology Engineering Center	2006
General Atomic Sites	2000
General Electric Vallecitos Nuclear Center	2005
Geothermal Test Facility	1997
Laboratory for Energy-Related Health Research	2002
Lawrence Berkeley National Laboratory	2003
Lawrence Livermore National Laboratory Main Site	2006
Lawrence Livermore National Laboratory	
Site 300	2006
Separations Process Research Unit	2014
Stanford Linear Accelerator Center	2000

The projected cost profile for environmental management associated with the Oakland Operations Office is developed by combining the cost estimates in each of the PBSs. Exhibit E-39 displays the resultant baseline cost profile.



## E.7.3 Work Scope Summary

The EM cleanup mission at Oakland Operations Office involves work at nine remaining sites (GTF was completed in FY 1997). Cleanup activities at these sites include the management of groundwater contaminated with volatile organic compounds at Lawrence Livermore National Laboratory and the management

of transuranic waste at SPRU. The sections below describe the major waste, material, and contaminated media volumes to be addressed by the Oakland Operations Office. The volumes reported are approximate, and correspond to the major waste, material, and media flows, potential treatment processes, and off-site disposal destinations presented in Exhibit E-40, the Oakland Operations Office Conceptual Summary Disposition Map.

## **Transuranic Waste**

Approximately 300 cubic meters of legacy transuranic waste are currently in inventory and 880 cubic meters are expected to be generated over the life cycle of operations. After characterization, repackaging, and size reduction, approximately 1,200 cubic meters are expected to be disposed of at WIPP.

## **Other Waste**

- Approximately 470 cubic meters of mixed low-level waste are currently in inventory and 13,000 cubic meters are expected to be generated over the life cycle of operations. After treatment, 8,200 cubic meters are expected to be disposed of at an undetermined facility.
- Approximately 4,200 cubic meters of low-level waste are currently in inventory and 58,000 cubic meters are expected to be generated over the life cycle of operations, of which 660 cubic meters are expected to be reused or recycled. The remainder will be processed, and 60,000 cubic meters are expected to be disposed of off site at either the Nevada Test Site, Hanford, or a commercial disposal facility.

## Remedial Action and Facility Deactivation and Decommissioning

- Approximately 43 million cubic meters of hazardous contaminated environmental media, including groundwater, will undergo a variety of responses including in-situ treatment, institutional controls, and on-site and off-site treatments such as air stripping, charcoal absorption, and vapor extraction. Following treatment, approximately 21,000 cubic meters are expected to be disposed of off-site at a commercial disposal facility.
- Approximately 70 cubic meters of transuranic contaminated environmental media will be addressed over the life cycle of operation, some of this is expected to be processed on site and disposed of at WIPP.
- Approximately 2.1 million cubic meters of mixed low-level and low-level contaminated environmental media will be managed and treated. Nearly 8,600 cubic meters are expected to be disposed of off site at a DOE site or a commercial disposal facility.